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To assure publication of papers with a minimum of delay and to provide readers with subject matter of a wide range and general interest, the AAAS editorial board has established the following policies.

Papers submitted by members and non-members of the AAAS will receive equal consideration for publication. Material that is not considered suitable for publication by the editorial board will be returned to the author, and it cannot be the subject of continuing correspondence.

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1) *Lead articles.* Lead articles varying in length from about 1000 to 10,000 words are invited for consideration. These may be general articles or reviews of recent advances in some field. Authors should keep in mind the broad audience of *Science* and should employ reasonably nontechnical language that will be intelligible to most readers.

2) *Reports and Letters.* All articles commonly called technical papers and communications, as well as letter-to-the-editor type of comments, are now placed in one department. Reports of research should be limited to four double-spaced, typewritten pages (about 1200 words). This includes the space occupied by figure or table, references, and author's name and affiliation. However, statements of conclusions without supporting data will not be accepted. *Such data should be included to the extent necessary.* Illustrative material should be limited to one table or one figure.

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Every effort will be made to publish papers promptly. This will require the cooperation of authors, who should follow these suggestions: (i) give special attention to concise expressions; (ii) supply clear figures that unquestionably are

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Every article, communication, or book review is accepted with the understanding that it has not been published or accepted for publication elsewhere. (Occasionally an important article is reprinted from, or simultaneously printed with, another periodical, usually one not readily available to readers of *Science*, but this is always done by special arrangement with the author.)

An article should receive a thorough review before submission, if possible by someone other than the author. If a manuscript is returned to an author for a thorough revision, the revision date will be regarded as the "Received" date for the article.

All manuscripts are to be submitted in duplicate, in order to expedite reviewing by referees and editorial processing. In the event that a paper is returned to an author for revision, one copy will be retained in the editorial office pending final disposition.

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For the first copy of the typescript, use a good grade of bond paper, 8.5 by 11 inches. *All copy, including quotations, footnotes, tables, literature references, and legends for figures, should be double-spaced.* Leave margins of at least 1.5 inches at the sides and at the top and bottom. Pages that are heavily corrected should be retyped. Do not insert corrections and additions lengthwise in the margin; the printer works with the typescript mounted in a frame that exposes only a few lines at a time.

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Line drawings should be made with India ink on heavy white drawing paper or blue tracing cloth. Ruled coordinate paper may be used for graphs, provided that it is printed in light blue; the important coordinate lines and scale markers that are intended to appear in the reproduction must be ruled in India ink.

A good size for a drawing is twice that desired for the printed figure, with all lettering and line thicknesses similarly enlarged. One-column-width illustrations are reproduced 2 1/4 inches wide; two-column width illustrations, 4-9/16 inches wide; three-column width illustrations, 6-15/16 inches wide.

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Photographs should have a glossy finish. For satisfactory reproduction, a print must be unblurred and must show sharp contrast between light and dark areas.

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References and notes. The only footnotes are to be those appended to tables and the author's affiliation in lead articles. All other explanatory notes, including acknowledgments and authorization for publication, and literature references are to be numbered consecutively and placed at the end of the article, under the heading "References and Notes."

Date of publication. Although an author will not be notified of the particular issue in which his paper will appear, receipt of galley proof is a fair indication that publication is imminent—usually within 3 weeks. If such a schedule is to be maintained, it is essential that the author mail his corrected galley proof to the editorial office (1515 Massachusetts

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Preparation of Graphs

These suggestions do not comprise a comprehensive set of suggestions but merely emphasize certain practices that often are disregarded. Most of the recommendations are in accord with those made in American Standards Association publication Z15.3.

Not more than three or four curves ordinarily should be shown on the same graph, although more may be included in the case of a family of well-separated curves. Use a solid line for an especially important curve and dashed, dotted, or lighter solid lines for the other curves. No curve or coordinate ruling of the graph should run through any lettering or outlined circles, triangles, and so forth, that are used to indicate plotted points.

Coordinate rulings should be limited in number to those needed to guide the eye in making a reading to the desired degree of approximation. Short scale markers, or "ticks," may be inserted between rulings if this is desirable. The rulings should be light enough not to distract attention from the curves being presented.

Lettering should be placed so as to be easily read from the bottom and from the right-hand side of the graph; that is, the lettering should face either the bottom or the right-hand side of the drawing.

Explanatory comments, supplementary data, or formulas should be placed in the figure legend or in the text. The exception to this rule is the case where there are several curves on the same graph that need separate identification; if practicable, they should be identified by brief labels placed close to the curve (horizontally or along the curve) rather than by single letters or numbers requiring a key.

If it seems necessary to place supplementary information on the drawing proper, the lettering should be kept within the vertical and horizontal limits of the curves or other essential features of the drawing. Otherwise the space oc-

cupied by the drawing may be needlessly large, or else the drawing may have to be reduced in reproduction, often to the point where the lettering or other details are illegible.

Scale captions should be placed outside the grid area, usually at the bottom toward the right for the horizontal scale and at the left-hand side toward the top for the vertical scale. The scale caption should consist of (i) the name of the variable plotted, (ii) its symbol, if one is used in the text, and (iii) in parentheses, the abbreviation for the unit of measure; thus, Pressure p (lb/in.²). Avoid using such captions as "Pressure in lb/in.²" and "Pressure in lb per sq. in." The technical terms, symbols, and abbreviations on a drawing should be in accord with those used in the text of the article.

The horizontal and vertical scales for a graph should be chosen with care, so as to give a correct impression of the relationship plotted, for the choice of scales has a controlling influence on the apparent rate of change of the dependent variable. Except where a visual comparison of plotted magnitudes is important, the bottom (abscissa) and extreme left-hand (ordinate) coordinate lines need not represent the zero values of the variables plotted: this often results in a more effective graph as well as a saving of space.

The numerals representing the scale values should be placed outside the grid area. If the scale values are smaller than unity and are expressed in decimal form, a cipher should always precede the decimal point; thus, 0.20, not .20.

The use of many ciphers in scale numbers should be avoided, and the best way to do this is to reexpress the quantity plotted in terms of a larger unit of measurement. For example, suppose that originally the scale numbers are 15 000, 20 000, 25 000 . . . and that the scale caption is "Pressure (lb/in.²)"; these scale numbers can be changed to 15, 20, 25 . . ., provided that the unit is changed to 10³ lb/in.². If, in this example, the data are correct to three significant figures and it is desirable to indicate this fact, then the scale figures should be 1.50, 2.00, 2.50 . . ., and the unit, 10⁴ lb/in.². Never use captions of the types: "Velocity $\times 10^3$ in ft/sec" and "Velocity (ft/sec $\times 10^3$)." They are ambiguous, since they do not indicate clearly whether the scale numbers have been or are to be multiplied by 10³.

Book Reviews

In general, unsolicited book reviews are not considered for publication. The

editors reserve the right to reject solicited reviews.

Anyone who undertakes to prepare a book review has accepted certain obligations: to the author, to the publisher, to the editor, to the reputation of the journals, and especially, to the reader.

The reviewer should consider what a reader might like to know about a book. Is it a good book of its kind? In what way is it better or worse than its predecessors? What field does it cover? To what audience is it addressed? If the book is written for a popular audience, the reviewer should judge how successful it is for that audience. Would it be a good book to own? How well does it fulfill the stated aims of the author? If it is not a first edition, how has it been changed, if at all?

The reviewer owes it to the author, who has undoubtedly spent much time and effort on the book, to be fair. He should not magnify minor errors out of proportion to their importance, but he should point out without rancorous or polemical outbursts any weaknesses, important errors, or misconceptions. In short, the reviewer should give an appraisal of the book, not of the author. If it is a generally good book with some faults, or a generally bad book with some good points, this should be made clear to the reader. If the book lies outside the field of the reviewer's competence, which may mean that its title is misleading, he should return it to the editors, or, if someone he knows is competent both in the field of the book and in writing reviews, he should turn the book over to him for review and notify the editorial office. If the book does not merit a review, the editorial office should be notified promptly.

Promptness in a book reviewer is an especially desirable virtue. The longer the lapse between publication of a book and its review, the less valuable the review.

Reviews should be no longer than necessary. An optimum length is between 200 and 300 words, an approximate upper limit is 650 words. The length of a review need not be proportional to the merit of a book. In fact, the relation may be one of inverse proportion, for a book with some merit and many defects may require a long review.

The writing should be clear and concise, and the reviewer should remember that he is writing for some nonscientists as well as for specialists in one or another field of science. The reader should be able to tell whether or not the books reviewed in fields other than his own have merit. A librarian, for example, should be able to decide from the review whether or not the book in question should be purchased for library use.



